



Test and Evaluation Conference

26 March 2001

Defense Systems Management College
Acquisition Policy Department

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Evolution of Defense Acquisition Policy

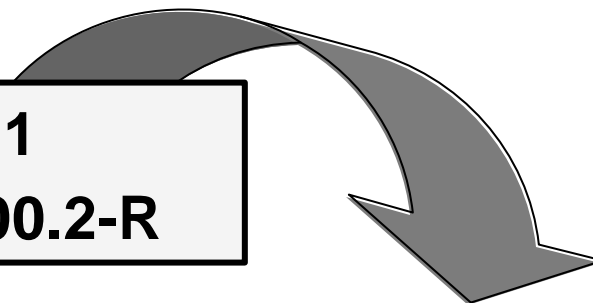
- **1969 - DSARC established by DEPSECDEF Packard.**
- **1971 - DoD Directive 5000.1, “Acquisition of Major Defense Systems”.**
- **1975 - DoD Instruction 5000.2, “Decision Coordinating Paper and the DSARC”.**
- **1976 - OMB Circular A-109, “Major System Acquisitions”**
- **1977 - DoDD/DoDI 5000.1/2 revised to incl. OMB Cir A-109. DoDI 5000.2 becomes “Major Systems Acquisition Process”, implements 5000.1.**
- **1987 - Policies and procedures extended to “nonmajor” acquisition programs.**
- **1991 - DoD 5000.2-M issued to provide detailed formats for all documents. 5000.1/2 expanded to absorb over 60 other directives, instructions, and memoranda.**
- **1996 - DoD 5000.1 applies to all programs. DoDI 5000.2 replaced with DoD Regulation 5000.2, applies to major programs (mostly). DoD 5000.2-M eliminated. Major AIS programs included. Deskbook created. Components “empowered” for nonmajor programs.**
- **2000 - DoDI 5000.2 returns, implements revised DoDD 5000.1- both apply to all programs. Milestones/phases restructured. S&T becomes major emphasis.**
- **(TBD) 2001 - DoD 5000.2-R revised; still primarily, but not completely, major programs. “Interim 5000.2-R” issued on 4 Jan 2001.**



DoD 5000 Series

From This (March 1996)

- DoD Directive 5000.1
- DoD Regulation 5000.2-R



To This

- DoD Directive 5000.1 (chg 1, 4 Jan 01)
- DoD Instruction 5000.2 (chg 1, 4 Jan 01)
- Interim 5000.2-R, 4 Jan 01

- 1996 DoD 5000.2-R cancelled
- *New DoD 5000.2-R pending*



Status of DoD 5000.2-R

- Revision of DoD 5000.2-R lagging behind new DoDD 5000.1 and DoDI 5000.2
- Interim 5000.2-R, 4 Jan 01, released as *Attachment 1* to memo from USD(AT&L), ASD(C³I) & DOT&E
- Applies to MDAPs and MAISs and specifically where stated, to less-than-major programs
- Interim 5000.2-R contains about 90% of what is expected to be in final DoD 5000.2-R - expected no earlier than Apr 2001



Transition to the New 5000 Process

“Grandfathering”

- Programs/efforts not yet past Milestone II: shall apply new phases and milestones unless MDA says otherwise.
- Programs past Milestone II: shall not apply new milestones and phases unless MDA says otherwise.
- All programs/efforts, regardless of where they are in the old process will comply with all the new policies and procedures in DoDI 5000.2.

Problems With Old Policy

- Only addressed systems acquisition - not total acquisition system
- Treated evolutionary approaches and innovations as “non-traditional” excursions
- Endorsed “tailoring” but provides no amplifying guidance to assist acquisition strategy development
- Provided no firm decision criteria

Our process and practices:

- Took too long and cost too much
- Were incompatible with modern technology cycles



The New 5000 Process

- ***Multiple process paths*** - not just one way of entering acquisition process
- ***Evolutionary acquisition*** - based on *time-phased requirements* - preferred (but not only) approach
- **Minimum number of *mission-oriented KPPs* to facilitate *cost-performance trades***
- **Achieve *proven technology* and a *validated ORD* --** before beginning systems-level development
- **Complete *full systems demonstration* --** before committing to low-rate production
- **Use *market research* and *commercial products* --** to increase competition

**Higher Performance, Lower Costs, More
Rapid Deployment**



The New 5000 Process Key Focus Areas

- **Deliver advanced technology to warfighters faster**
 - Rapid acquisition with demonstrated technology
 - Time-phased requirements and evolutionary development
 - Integrated test and evaluation
- **Reduce total ownership costs**
 - Cost as a requirement that drives design, procurement, and support
 - Increased competition

“Improved performance (including quality) at lower cost.”



The New 5000 Process Key Focus Areas, continued...

- **More flexible process focused on interoperability, supportability, and affordability**
 - Integration of acquisition and logistics
 - Interoperability as a Key Performance Parameter
 - Improve software management
 - Emphasis on total system support and operational sustainment

“Improved performance (including quality) at lower cost.”



The New 5000 Process

What's New in DoDD 5000.1?

- **Achieving interoperability**
- **Rapid & effective transition from S&T to Products**
 - Time-phased requirements & communications with users
 - Commercial products, services & technologies
 - Performance based acquisition
- **Rapid & effective transition from acquisition to deployment & fielding**
 - Evolutionary acquisition
 - Integrated test & evaluation
 - Competition
 - Commitment to production



The New 5000 Process

What's New in DoDD 5000.1?

Continued...

- **Integrated & Effective Operational Support**
 - Total systems approach
 - Logistics transformation
 - Protection of critical program information
- **Effective Management**
 - Tailoring
 - Cost & affordability
 - Program stability
 - Simulation based acquisition
 - Streamlined organizations & a professional workforce



The New 5000 Process

What's New in DoDI 5000.2?

- **Three Major Activities; Four Phases; Eight Work Efforts**
- **Decision & Interim Progress Reviews**
- **Key capability enablers (Critical Pgm Info, Info Superiority, & Interoperability)**
- **Interoperability as Mandatory KPP**
- **Procurement of Services to satisfy mission need.**
- **Technological Opportunity Activities**
- **Independent Technology Assessments**



The New 5000 Process

What's New in DoDI 5000.2?

Continued...

- **Use of ATDs, ACTDs & Experiments**
- **Entrance Criteria**
- **Analysis of Multiple Concepts**
- **Technology Transition Fund**
- **Foreign Disclosure & Anti-Tampering**
- **Clinger-Cohen Compliance**
- **Preference for Allied Systems**
- **CIO Registration**
- **OIPT Leader Approval of TEMP**
- **Proof of Software Systems Maturity**



The New 5000 Process

What's New in DoDI 5000.2?

Continued...

- **Evolutionary Acquisition & Time-Phased Requirements**
- **Evolutionary Sustainment**
- **Follow-on Blocks for Evolutionary Acq**
- **Pre-ACAT Technology Projects**
- **Report of Change in ACAT Level**
- **Written Charter for Program Managers**
- **Restricts PEO “other responsibilities”**
- **Application for Frequency Allocation**

Evolutionary Acquisition Strategy (Block Upgrades)

- **Block 1: Initial deployment of usable increment of capability.**
- **Block 2 & subsequent blocks: Two approaches -**
 - 1. ORD has firm requirement for each block. Each block is baselined, funded, developed, tested and produced using traditional methods.**
 - 2. ORD defines block 1, but does not allocate to subsequent blocks remaining requirements to achieve full capability.**
 - Sequential block upgrades to achieve full capability based on user experience with delivered system.**
 - ORD updated lead-time away from each block, based on user understanding of delivered capability of previous block.**



The New 5000 Process Emphasis on Technology

- **Technology Transition Objectives - Component S&T Executives shall:**
 - Advise requirements & acquisition communities of new technology developments
 - Conduct independent technology assessments
- **Technology Transition Mechanisms**
 - Advanced Technology Demonstrations (ATDs)
 - Advanced Concept Technology Demonstrations (ACTDs)
 - Experiments

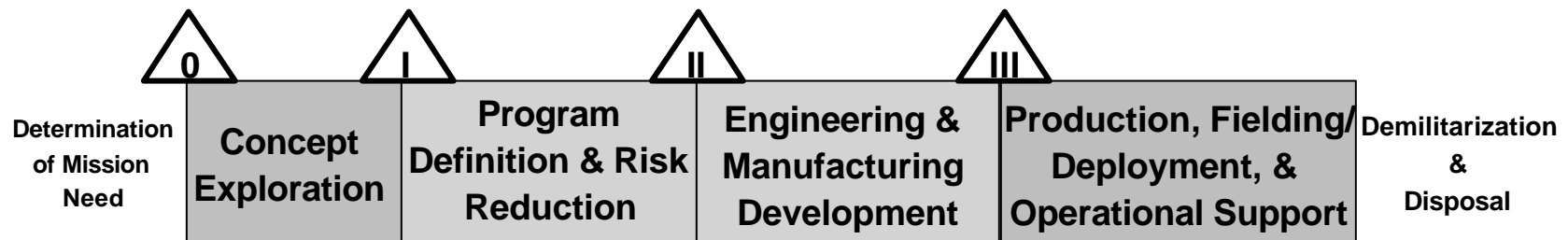


The 5000 Process

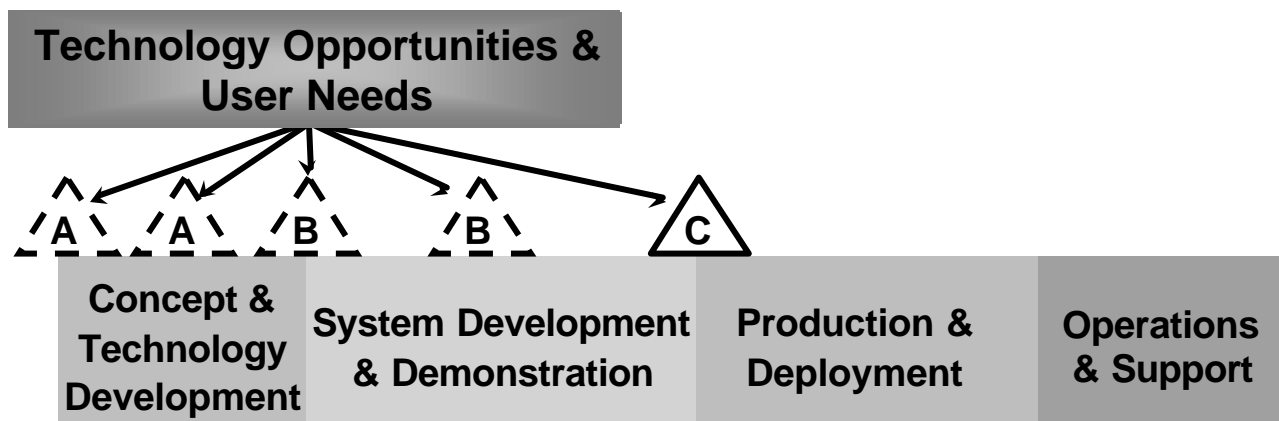
old and new

T&E Conf 26 Mar chart 16

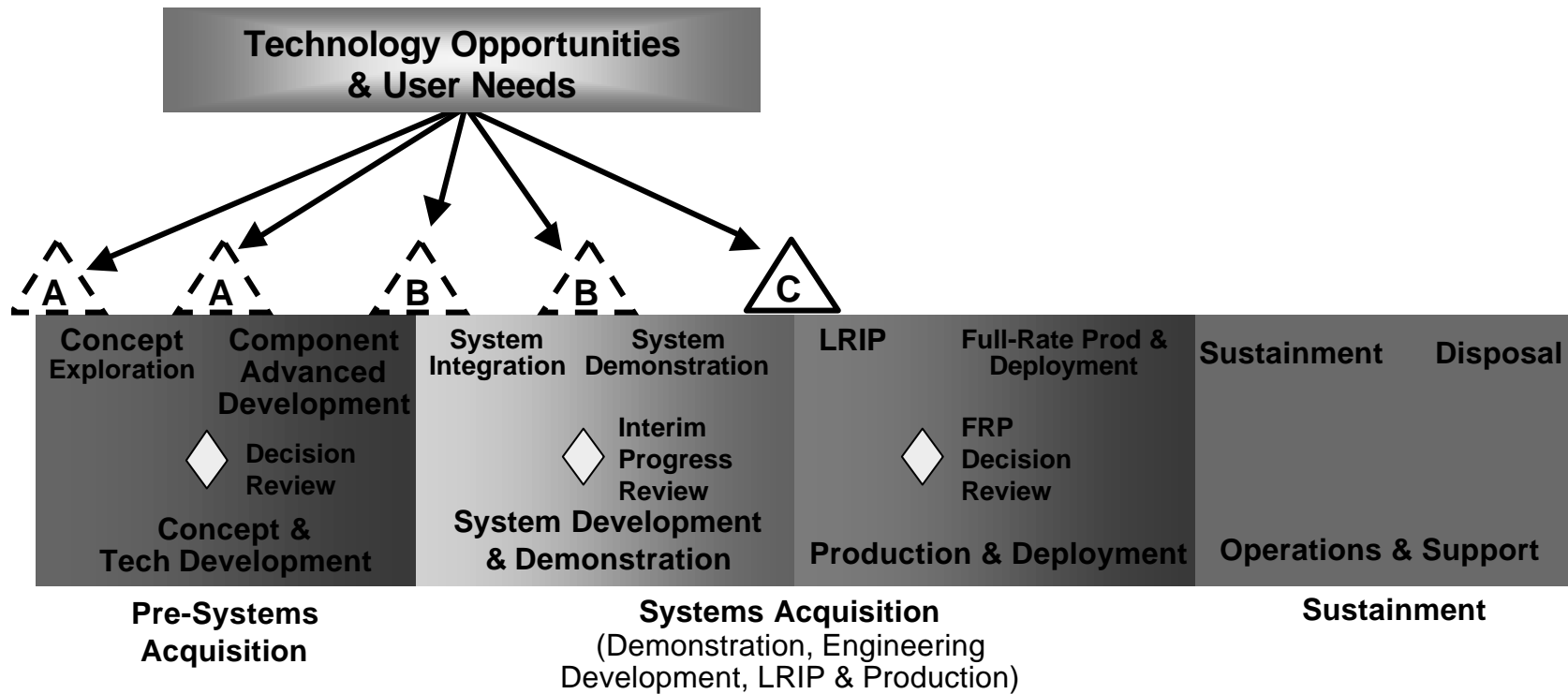
Old Process



New Process

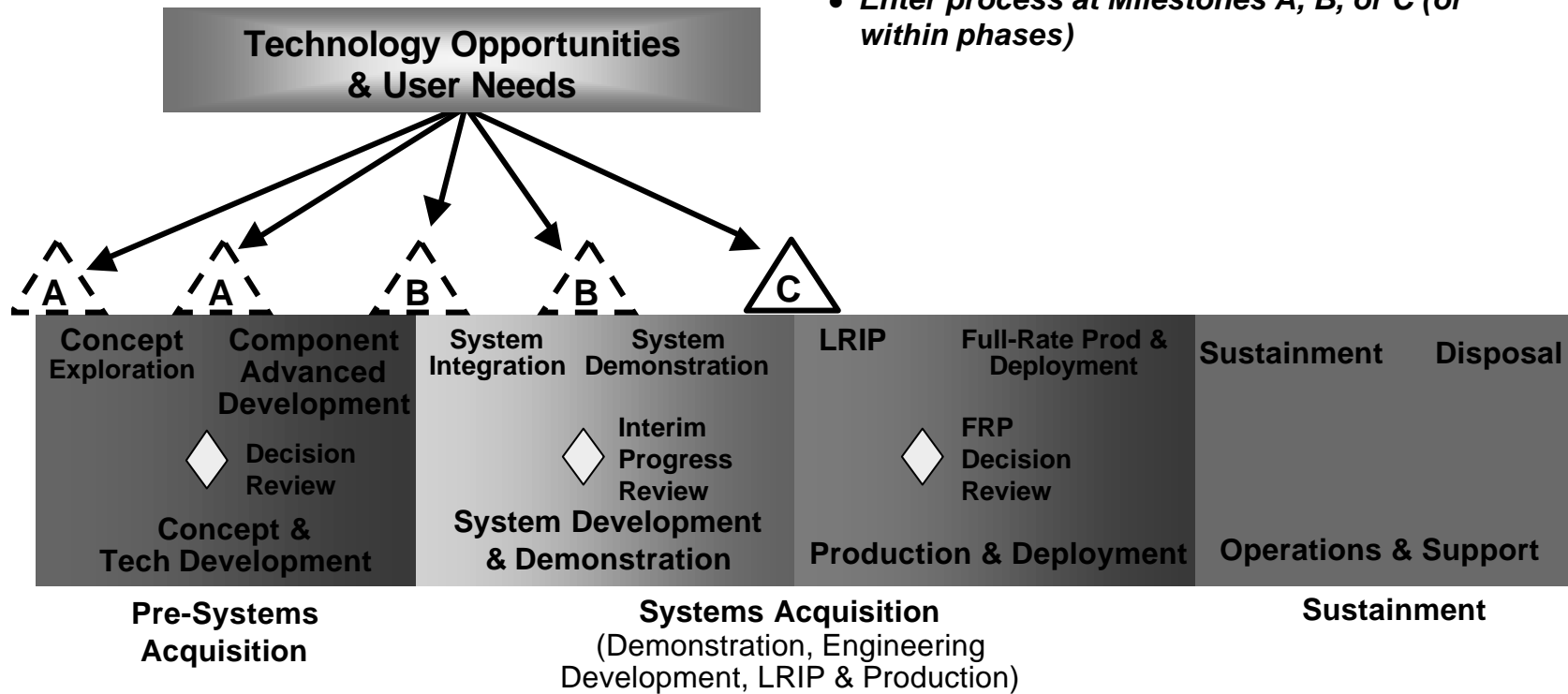


Defense Acquisition Management Framework

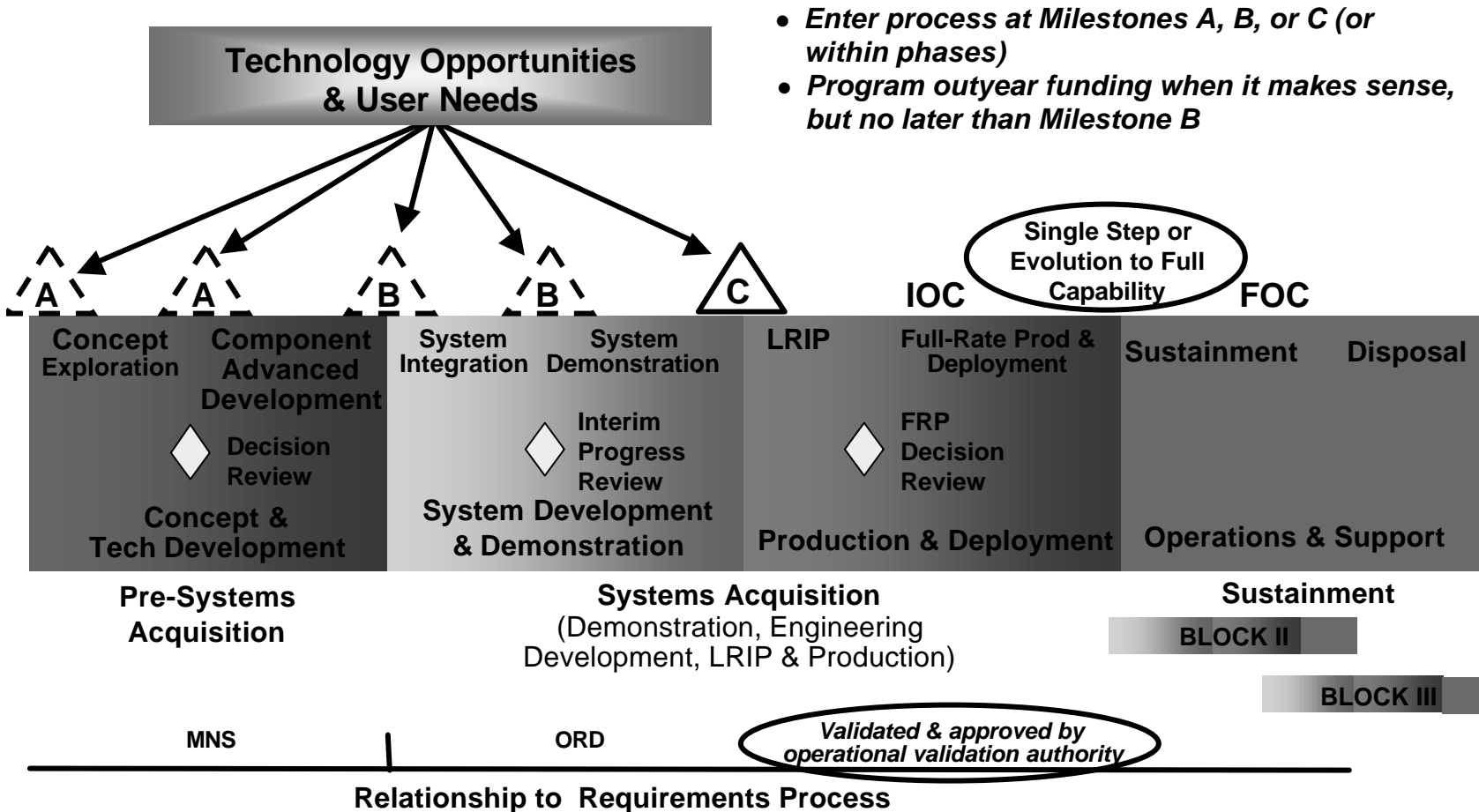


Defense Acquisition Management Framework

- Enter process at Milestones A, B, or C (or within phases)



Defense Acquisition Management Framework





Implementation Challenges

- **Accepting a militarily useful capability early, based on demonstrated technology, and obtaining objective capability when technology matures**
- **Ensuring that successive evolutionary blocks are adequately funded**
- **Ensuring that “transition funding” is available to speed the transition of successful demonstrations to acquisition**
- **Integrating the test and evaluation community into the new acquisition approach**
- **Ensuring that the workforce (including industry) is adequately trained to successfully implement the new approach**
- **Assuring Congress that the new approach will maintain their visibility into DoD programs and continue their ability to verify DoD’s accountability for program success**
- **Employing new product support strategies**



DoD 5000 Series Resource Center

- DAU Home
- Links
- Help



Documents

- ▶ DoD Directive 5000.1
- ▶ DoD Instruction 5000.2
- ▶ DoD Regulation 5000.2-R

Learning Resources

- ▶ Terminology Review
- ▶ Defense Acquisition Process Tutorial
- ▶ Frequently Asked Questions

Brought to you by DSMC and ODUSD(AR)

<http://dod5000.dau.mil>

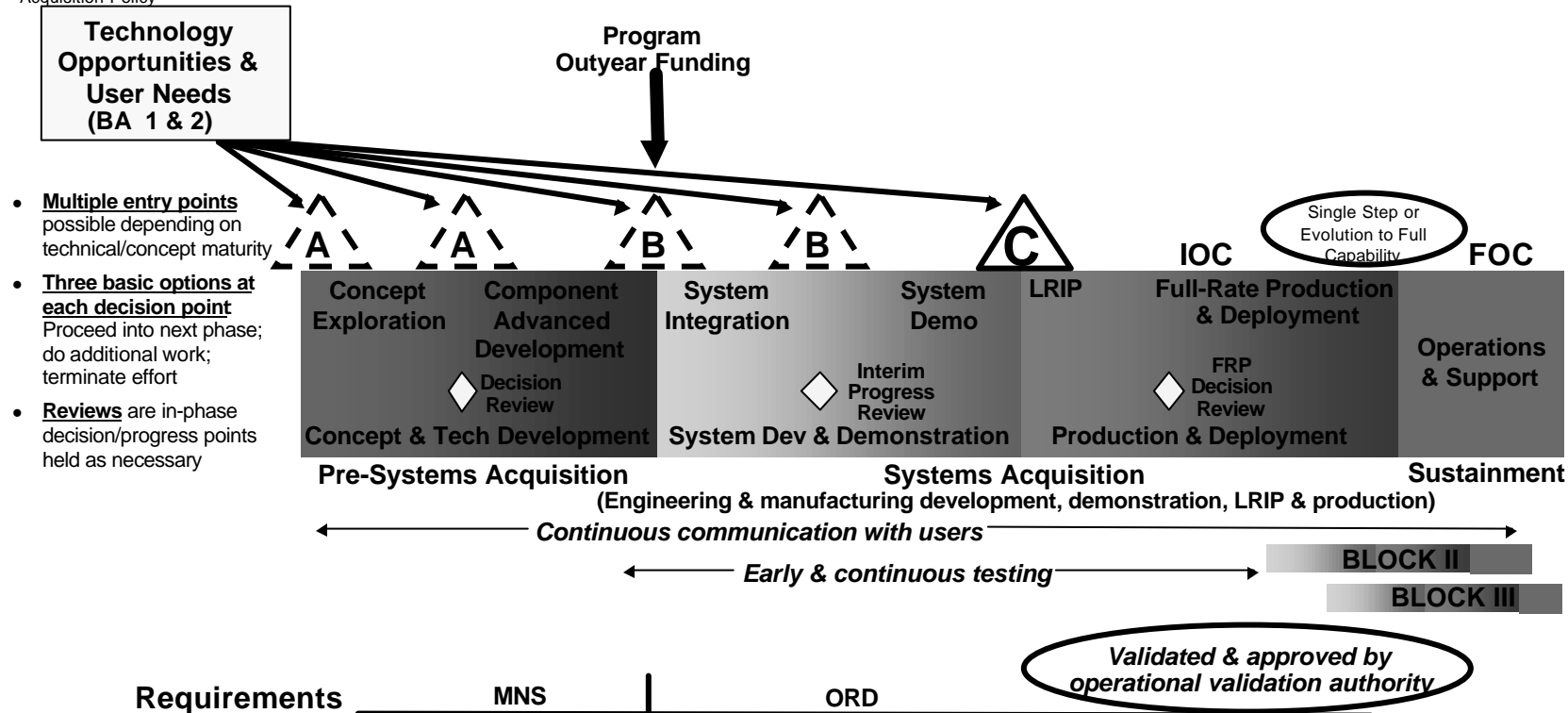
Back-up Charts



Acquisition Policy

The 5000 Process

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<u>Concept Exploration</u>	<u>Component Advanced Development</u>	<u>System Integration</u>	<u>System Demonstration</u>	<u>Low-Rate Initial Production</u>	<u>Full-Rate Prod & Deployment</u>
<ul style="list-style-type: none"> • Paper studies of alternative concepts for meeting a mission need 	<ul style="list-style-type: none"> • Development of subsystems/components that must be demonstrated before integration into a system • Concept/tech demo of new system concepts 	<ul style="list-style-type: none"> • System integration of demonstrated subsystems and components • Reduction of integration risk 	<ul style="list-style-type: none"> • Complete development • Demo engineering development models • Combined DT/OT 	<ul style="list-style-type: none"> • IOT&E, LFT&E of prod-rep articles • Create manufacturing capability • LRIP 	<ul style="list-style-type: none"> • Full rate production • Deployment of system

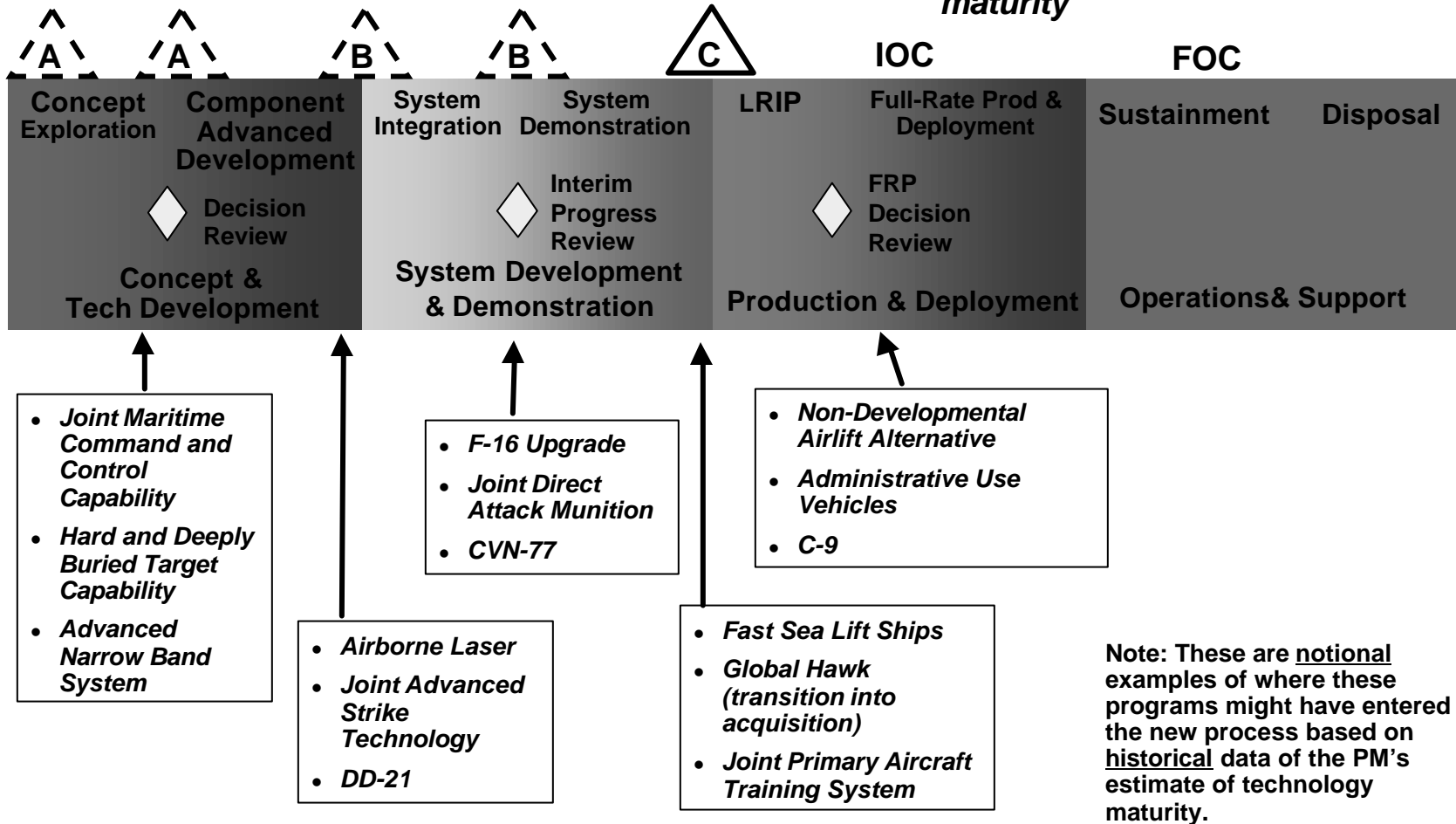


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Concept Overview

Programs can enter the process at various points depending on concept and technology maturity





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T&E Conf 26 Mar chart 25

Information For Milestones & Reviews

Information (DoDI 5000.2)	Milestone/Review					
	A	DR	B	IPR	C	FRP
Acquisition Decision Memorandum	X	X	X	X	X	X
Acquisition Program Baseline		Note 1	X		X	X
Acquisition Strategy (28 major elements)		Note 1	X		X	X
Affordability Assessment			X		X	
Analysis of Multiple Concepts	X					
Analysis of Alternatives			X		Note 3	
Application for Frequency Allocation			X		X	
Beyond LRIP Report (note 2)						X
C4 Integrated Support Plan		Note 1	X		X	
Clinger-Cohen Act Compliance (all IT)		Note 1	X		X	X
Compliance with Strategic Plan			X		X	
Component Cost Analysis (MAIS; optional MDAP)			X			X
Consideration of Technology Issues	X		X		X	
Cooperative Opportunities			X		X	X
Cost Analysis Requirements Description (MDAPs)			X		X	X
Economic Analysis (MAIS)			X			
Exit Criteria	X	X	X	X	X	X
Independent Cost Estimate (MDAPs; n/a AIS)			X		X	X
Independent Technology Assessment			X		X	

Notes: 1. At entry to CAD if CAD is program initiation. 2. OSD T&E Oversight programs. 3. If no MS B.



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Information For Milestone/Decision Reviews, continued

Information (DoDI 5000.2)	Milestone/Review					
	A	DR	B	IPR	C	FRP
Interoperability Certification						X
IT Certification (MAIS)		X	X		X	X
Live Fire T&E Waiver (covered systems)(note 2)			X			
Live Fire T&E Report (covered systems)(note 2)						X
LRIP Quantities			X			
Manpower Estimate (MDAPs)			X			X
Market Research	X		X			
Mission Need Statement	X					
National Environmental Policy Act Schedule		Note 1	X		X	X
Operational Requirements Document			X		X	
OT&E Results			X		X	X
Post Deployment Performance Review						X
Program Protection Plan			X		X	
Registration of Msn Critical & Msn Essential Info Sys		Note 1	Note 1		Note 1	
System Threat Assessment (n/a AIS)			X		X	
Selected Acquisition Report (MDAPs)		Note 1	X		X	X
Test & Evaluation Master Plan	Note 3		X		X	X

Notes: 1. If program initiation. 2. OSD T&E Oversight programs. 3. Eval strategy for MNS due 180 days after MS A



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Acquisition Strategy Elements

Interim DoD 5000.2-R, 4 Jan 01

- **Requirements**
 - Approved Source Docs
 - Status of In-process Source Docs
- **Program Structure**
- **Acquisition Approach**
- **Risk**
- **Program Management**
 - Resources
 - Advance Procurement
 - PMO Staffing & Support
 - Info Sharing & DoD Oversight
 - IDE
 - Tech Reps at Contractor Facilities
 - Government Property In Possession of Contractors
 - Tailoring & Streamlining
 - Requests for Relief or Exemption
 - Applying Best Practices
 - Planning for Modeling & Simulation
 - Independent Expert Review of Software Intensive Programs
- **Design Considerations**
 - Open Systems
 - Interoperability
 - IT Interoperability
 - Other than IT Integration
 - IT Supportability
 - Protection of Critical Program Info & Anti-Tamper Provisions
- **Support Strategy**
 - Product Support
 - Management Plan
 - Integration
 - Source of Support
 - Depot Maintenance
 - Supply
 - Contractor Log Support
 - Human Sys Integration
 - Environ Safety & Occupational Health
 - Demil & Disposal
 - Life Cycle Support Oversight
 - Post Deployment Evaluation



Acquisition Strategy Elements

Interim DoD 5000.2-R, continued..

- **Business Strategy**
 - **Competition**
 - **Fostering a Competitive Environment**
 - ♦ **Competition Advocates**
 - ♦ **Ensuring Future Competition**
 - **Building Competition Into Strategies**
 - ♦ **Acquisition Phases**
 - ♦ **Evolutionary Acquisition**
 - ♦ **Industry Involvement**
 - **Potential Obstacles**
 - ♦ **Exclusive Teaming**
 - ♦ **Sub-Tier Competition**
 - **Potential Sources**
 - ♦ **Market Research**
 - ♦ **Commercial & NDI**
 - ♦ **Dual-Use Tech & Comm Plants**
 - ♦ **Industrial Capability**
 - **SBIR Technologies**
 - **International Cooperation**
 - **Cooperative Strategy**
 - **Interoperability**
 - **Compliance**
 - **Testing Required for Foreign Military Sales**
 - **Contract Approach**
 - **Major Contracts Planned**
 - **Contract Type**
 - **Contract Incentives**
 - **Performance Mgmt**
 - **Integrated Baseline Reviews**
 - **Special Terms & Conditions**
 - **Warranties**
 - **Component Breakout**
 - **Leasing**

From DoDI 5000.2, Encl 3, Table 1

- | | |
|-------------------------------|------------------------------------|
| • Partnering Analysis | • Core Logistics Analysis/ |
| • Make or Buy Analysis | • Source of Supply Analysis |



The New 5000 Process Milestones, Phases & Work Efforts

T&E Conf 26 Mar chart 29

**OLD: “pipeline” approach:
4 Milestones; 4 Phases**

- **Milestone 0, Approval to Conduct Concept Studies**
 - Phase 0, Concept Exploration
- **Milestone I, Approval to Begin a New Acquisition Program**
 - Phase I, Program Definition & Risk Reduction
- **Milestone II, Approval to Enter Engineering & Manufacturing Development**
 - Phase II, Engineering & Manufacturing Development
- **Milestone III, Production or Fielding/Deployment Approval**
 - Phase III, Production, Fielding/Deployment, & Operational Support

**NEW: “flexible entry” approach:
3 Milestones; 4 Phases; 8 work efforts**

- **Milestone A, Decision to enter Concept & Technology Development Phase.**
May enter at:
 - Concept Exploration, or
 - Component Advanced Development
- **Milestone B, Program Initiation, and Decision to enter System Development & Demonstration Phase.** **May enter at:**
 - Systems Integration, or
 - Systems Demonstration
- **Milestone C, Decision to enter the Production & Deployment Phase**
 - LRIP (ACAT I/II), or production/procurement (ACAT III)
 - Production & Deployment
- **Operations & Support Phase**
 - Sustainment
 - Disposal